

ABSTRACT OF THE DISCLOSURE

A method for navigation processing in a satellite positioning system receiver is disclosed. A method in accordance with the present invention comprises separating the three SATPS satellites into a first pair and a second pair, constructing a primary solution and an alternate solution, wherein
5 the primary solution and the alternate solution satisfy the measurement constraints, computing a Doppler difference estimate for the primary solution and a Doppler difference estimate for the alternate solution, computing Doppler difference residuals for the first pair and the second pair of SATPS satellites, and comparing the Doppler difference residuals for said primary and alternate solutions to determine a valid solution. Typically, the computing of a Doppler difference residuals
10 comprises differencing a measured Doppler difference from an estimated Doppler difference for the first pair and the second pair of SATPS satellites. Typical determination of a valid solution comprises comparing the difference between the Doppler difference residuals to a predetermined number. Usually when the Doppler difference residuals exceed the predetermined number, the alternate solution is selected as the valid solution.

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